

STATE OF IDAHO
Department of Fish and Game

Annual Project Closing Report
MACKAY HATCHERY SPRING CHINOOK

Project No. 88E22030

Contract No. 03-78-M02-32

Period Covered: October 1, 1977 to September 30, 1978

Columbia River Fisheries Development Program

June, 1979

Mackay Hatchery Spring Chinook

Background

The 1976 spring Chinook run was the smallest on record. At that time, the Idaho Department of Fish and Game contracted with the National Marine Fisheries Service to rear additional spring chinook for introduction into the Salmon River system.

This is the second year of production. This is the second largest chinook rearing program of the state of Idaho.

Incubation and Rearing

At the beginning of this year, October 1977, we had on hand 1,336,072 3-6" fish. The group hatched and started at Mackay were weighing 15.8 per pound. The other group, hatched and started at Sandpoint, weighed 37.5 per pound. All eggs were Rapid River stock.

Heath incubators were used giving us better results than the upwelling barrel type used last year. Coagulated yolk sac and blue sac were still present but on a smaller scale than last year.

Despite the use of many plastic shades sunburn was still the main cause of losses in the fingerling and smolt size fish. Red throat, bacterial gill disease, and kidney disease also contributed to our rather heavy losses.

Treatments with copper sulfate, Purina 4X, cutrine, and the use of medicated feed were little or no help with the problems.

Fish stocking into the upper Salmon River during the year was as follows:

<u>Number</u>	<u>Size</u>	<u>Month</u>
250,200	fingerlings	November
621,600	smolts	February
5,629	smolts	March
262,400	smolts	April
607,750	fry	May
51,120	fingerlings	July

Prepared by:

James W. McLin
Fish Hatchery Superintendent I
Mackay Hatchery